

ANDREYEV, N. S.; AVERYANOV, V. I.; PORAY-KOSHITS, Ye. A.

"The critical phenomena in sodium silicate glasses."

report submitted for Intl Conf' on Physics of Non-Crystalline Solids, Delft, Netherlands, 6-10 Jul 64.

Grebenshchikov Inst for Silicate Chemistry, AS, Leningrad.

AVERYANOV, V. I.; FURAY-KOSHITS, Ye. A.

"Chemical separation and crystallization of some binary silicate glasses."

report submitted to 3rd European Regional Conf, Electron Microscopy,
Prague, 26 Aug-3 Sep 64.

ANDREYEV, N. S.; AVERYANOV, V. I. /

"Structural investigations of sodium silicate glasses in the region of metastable liquation."

report submitted for 4th All-Union Conf on Structure of Glass, Leningrad, 16-21 Mar 64.

L 16543-65 EWT(m)/ENP(e)/ENP(b) Pg-4 ESD(t)/ESD(gs)/SSD/AFWL/ASD(a)-
ACCESSION NR: LAP5000160 WH S/0012/64/030/012/1473/1475

AUTHORS: Aver'yanov, V. I.; Poray-Koshits, Ye. A.

TITLE: Electron microscopic studies of surfaces with great relief

SOURCE: Zavodskaya laboratoriya, v. 30, no. 12, 1964, 1473-1475

TOPIC TAGS: electron microscopy, crystallization, glass

ABSTRACT: The structure of crystallized glass may be studied successfully in a single step. The surface of a fragment, etched in weak HF1, is sputtered simultaneously with platinum and carbon at some acute angle, one to the other. The replicas are then removed. Experimental study was made of a glass in the system Li_2O-SiO_2 , and the sputtering was done by the method of D. E. Bradley (Brit. J.

Appl. Phys., 5, 2, 1954), with the sample rotating at about 1000 r.p.m. while simultaneously swinging at right angles with a frequency of about 60 cycles per minute. Replicas obtained in this way are stronger than those obtained on fixed samples.

The replicas are removed by immersion in 10% HF1, and may be reinforced with

by studies of the indicated type. (U.S. Pat. 3,111,111, 1964)

Card 1/1

L 16643-65
ACCESSION NR: AF5000160

ASSOCIATION: Institut Khimii silikatov im. I. V. Grebenshchikova, Akademii nauk
SSS (Institute of Silicate Chemistry, Academy of Sciences USSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: OP, ME, SS

NO REF SOV: COI

OTHER: (X)3

Cond 2/2

L 00392-66 EWP(e)/EWT(m)/EWP(i)/EWP(t)/EWP(b) IJP(c) JD/GS/WH

ACCESSION NR: AT5013389

UR/0000/65/000/000/00/6/0100

AUTHOR: Aver'yanov, V. I.; Poray-Koshits, Ye. A.

TITLE: Electron-microscopic study of the inhomogeneous structure and initial stages of crystallization of glasses in the lithium oxide - silica system

SOURCE: AN SSSR. Institut khimii silikatov. Strukturnyye prevrashcheniya v steklakh pri povyshennykh temperaturakh (Structural transformations in glass at high temperatures). Moscow, Izd-vo Nauka, 1965, 76-100

TOPIC TAGS: glass crystallization, lithium glass, glass structure, lithium disilicate

ABSTRACT: An attempt was made to determine the dependence of the micro-inhomogeneous structure on the heat treatment and composition, with the Li₂O content ranging from 12 to 35 mole %. The main method used was electron microscopy, with x-ray phase analysis and optical microscopy as auxiliary methods. In all the glasses studied, an inhomogeneous structure was observed. The temperature and time dependences of the inhomogeneities obtained indicate that the inhomogeneous structure in glasses with 29 mole % Li₂O or less arises from metastable liquation, which declines as glass with 33.3 mole % Li₂O is approached. The

Card 1/2

L 00392-66

ACCESSION NR: AT5013389

separation occurs into phases close in composition to SiO_2 and $\text{Li}_2\text{O} \cdot 2\text{SiO}_2$, with the ratio of the phase volumes changing as a function of the Li_2O content. In glasses with 33.3 and 35 mole % Li_2O , no liquation is observed, and the inhomogeneous structure is apparently related to the fluctuations in the composition. A structure of this type apparently also arises in glasses with $\text{Li}_2\text{O} < 33.3$ mole %, but it is masked by inhomogeneities of liquational type. During the crystallization of lithium disilicate, the liquational inhomogeneities do not break down, but their further growth ceases. In the glass compositions studied, the micro-inhomogeneous structure does not limit the crystal size. The lower the Li_2O content, the greater the deceleration of the crystal growth rate in the liquating glasses. It was noted that at relatively low temperatures, lithium disilicate crystallizes in the form of spherulites which change into single crystals at about 950C. Orig. art. has: 10 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 21Dec64

ENCL: 00

SUB CODE: MT

NO REF SOV: 009

OTHER: 012

Card

2/2

I. 00475-66 EWP(e)/EWT(m)/EWP(1)/EWP(b) GS/VH

ACCESSION NR: AT5013396

UR/0000/65/000/000/0177/0108

AUTHOR: Totesh, A. S.; ⁴⁴Aver'yanov, V. I.; ⁴⁴Strel'tsina, M. V.; ⁴⁴Roskova, G. P. ⁴⁴

TITLE: Change in the chemical stability of glass as a result of its crystallization ⁴⁴

SOURCE: AN SSSR. Institut khimii silikatov. ⁴⁴Strukturnyye prevrashcheniya v steklakh pri povyshennykh temperaturakh (Structural transformations in glass at high temperatures). Moscow, Izd-vo Nauka, 1965, 177-185

TOPIC TAGS: glass property, glass crystallization, lithium disilicate

ABSTRACT: The article compares the properties of substances in the vitreous and crystalline state, and examines the influence of the crystal structure on these properties. The substance chosen for the study was lithium disilicate $\text{Li}_2\text{O} \cdot 2\text{SiO}_2$, from which crystalline products of various structures were prepared by using different heat treatments with or without a catalyst (platinum). Electron microscopy was employed. It was found that in most cases the chemical stability of the crystallization products (tested with water and decinormal solutions of hydrochloric acid, sodium hydroxide, and hydrofluoric acid) is either lower or close to that of the original glass. Crystalline products of

Cont 1/2

L 00475-66

ACCESSION NR: AT5013396

the same chemical composition but of different structure differ substantially in chemical stability. The crystal size does not determine the chemical stability of the material. When $\text{Li}_2\text{O} \cdot 2\text{SiO}_2$ glass and products of its crystallization react with hydrochloric acid, mainly Li_2O is leached out. Water also washes Li_2O out of the glass; however, equal molar quantities of Li_2O and SiO_2 are washed out of the crystalline products. When sodium hydroxide is used, both glass and crystalline products also yield equal molar quantities of Li_2O and SiO_2 . In hydrofluoric acid, both the glass and the crystallization go into solution. Orig. art. has: 4 figures and 5 tables.

ASSOCIATION: none

SUBMITTED: 21Dec64

ENCL: 00

SUB CODE: MT

NO REV SOV: 007

OTHER: 002

Card

2/2

L 11842-66 EWT(m)/ENP(e)/ENP(b) GS/WH

ACC NR: AT6000473

SOURCE CODE: UR/0000/65/000/000/0098/0100

AUTHOR: Aver'yanov, V. I.; Poruy-Koshits, Ye. A.

ORG: None

TITLE: Electron-microscopic study of phase separation in glasses of the lithium-silica system

SOURCE: ⁶¹⁴⁴ Vsesoyuznoye soveshchaniye po stekloobraznomu sostoyaniyu. 4th, Leningrad, 1964. Stekloobraznoye sostoyaniye (Vitreous state); trudy soveshchaniya. Leningrad, Izd-vo Nauka, 1965, 98-100

TOPIC TAGS: lithium glass, glass property, *silicate glass, electron microscopy, crystallization*

ABSTRACT: Glasses of the $\text{Li}_2\text{O-SiO}_2$ system containing 12-38 mole % Li_2O were studied. The glasses were subdivided into opalescent ones, containing less than 33.3% Li_2O (group I), and nonopalescent ones, containing more than 33.3% Li_2O (group II). Glasses of group I separate into two phases, one of which is close in composition to SiO_2 , and the other to $\text{Li}_2\text{O} \cdot 2\text{SiO}_2$. The observed behavior of the glasses in heat treatment is consistent with the concept according to which phase separation is a phase process developing below the liquidus and solidus curves. Liquation of lithium silicate glasses is metastable and develops as an independent process interrupted by the crystallization of the alkali-rich phase. The microstructure (microheterogeneity) of the glasses is discussed in relation to the phase

Cord 1/2

L 11842-66

ACC NR: AT6000473

separation phenomena. Orig. art, has: 7 figures.

SUB CODE: 11, 20 / SUBM DATE: 22May65 / ORIG REF: 007

HW
Card 2/2

VESELOV, I.V.; AVER'YANOV, V.M., energetik

Concerning the improvement in the training of specialists in the field of electrification of industrial enterprises. Prom. energ. 16 no.4:49-50 Ap '61. (MIRA 14:9)

1. Rizhskiy ~~superfosfatnyy~~ zavod (for Veselov).
(Electrification)
(Electric engineering--Education and training)

AVER'YANOV, V.S.

Characteristics of macrointerval in the motor activity of a
man. Vest. LGU 17 no.3:93-101 '62. (MIRA 15:2)
(ERGOGRAF)
(MOVEMENT(PHYSIOLOGY))

VINOGRADOV, M.I., otv. red.; NOCHILOV, K.S., otv. red.; KHAVKINA,
N.N., otv. red.; AVER'YANOV, V.S., red.; OSIPOVA, O.V.,
red.; UTKINA, N.S., red.; KISELEVA, L.I., tekhn. red.

[Materials of the Scientific Conference on Work Physiology
Devoted to the Memory of A.A.Ukhtomskii] Materialy Nauchnoi
konferentsii po fiziologii truda, posviashchennais pamiati
A.A.Ukhtomskogo. Leningra, Izd-vo Leningr. univ., 1963.
372 p. (MIRA 17:3)

1. Nauchnaya konferentsiya po fiziologii truda, posvyashchen-
naya pamyati A.A.Ukhtomskogo. 2. Fiziologicheskii institut
im. A.A.Ukhtomskogo Leningradskogo gosudarstvennogo universi-
teta (for Aver'yanov, Vinogradov, Osipova, Tochilov, Utkina,
Khavkina)

AVER'YANOV, V.S.

Mechanism of the formation of motor acts based on the data of electro-
myography. Vest. LGU 18 no.9:64-72 '63. (MIRA 16:6)
(Movement (Physiology))

AVER'YANOV, V.S. (Leningrad)

Conference on problems related to the physiology of
agricultural occupations. Fiziol.zhur. 51 no.11:1383-
1384 N '65. (MIRA 18:11)

L 32932-66 EWI(1) IJP(c)

ACC NR: AP6021406

SOURCE CODE: UR/0387/66/000/006/0060/0056

AUTHOR: Aver'yanov, V. S.; Sholpo, G. P.

ORG: Academy of Sciences SSSR, Institute of the Physics of the Earth, Leningrad State University (Akademiya nauk SSSR, Institut fiziki zemli, Leningradskiy gosudarstvennyy universitet)

TITLE: On the nature of differences between various kinds of remanent magnetization

SOURCE: AN SSSR. Izvestiya. Fizika zemli, no. 6, 1966, 60-66

TOPIC TAGS: ~~remnant magnetization~~, ^{property} magnetic phase, ^{magnetic} hysteresis, alternating current, demagnetization, ^{2,} magnetization

ABSTRACT: Experimental investigations of remnant magnetization revealed different kinds of such magnetization and its stability against external actions. The kind of magnetization depends upon the magnetic phase. There are two magnetic phases. One is associated with processes of hysteresis and participates in the formation of the remanent magnetization under the action of the magnetic field. The other magnetic phase generates temporary magnetization. The stability of isothermic remanent magnetization increases under the action of alternating current when the magnetization also increases. This increase is associated either with the prolongation of the field action or with the increase of the field intensity in a limited time. In the first case, a rapid increase of stability takes place. In processes of hysteresis,

Card 1/2

SOV/137-59-5-10336

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 5, p 126 (USSR)

AUTHOR: Aver'yanov, Ye.A.

TITLE: Welding Without Waste Ends 18

PERIODICAL: Byul. tekhn.-ekon. inform. Sovnarkhoz Stalinskogo ekon. adm.
r-na, 1958, Nr 1 - 2, pp 30 - 31

ABSTRACT: An electrode holder, ensuring the full utilization of electrodes without waste ends, was designed at the Novokramatorsk Machine Building Plant. The new electrode holder makes it possible to join the butt of the used electrode to the new electrode. Standard electrodes of 450 mm length with a trimmed end are used for welding without waste ends. The electrodes are placed in a special container. The labor efficiency of the welder is increased by 1.5 times. While working with conventional electrode holders a welder consumes 4 - 5 kg of electrodes during one shift; using the new electrode holder and electrodes coated over their full length, a

Card 1/2

Welding Without Waste Ends

SOV/137-59-5-10336

welder consumes 8 kg under the same conditions. The introduction of the new welding method saves 15 - 20% of electrodes, thus enabling the Novokramatorsk Plant to save an amount of 200,000 rubles annually.

A.B.

✓B

Card 2/2

L 56854-65 DWT(m) Feb DIAAF

ACCESSION NR: AP5011870

UR/0120/65/000/002/0052/0053

539.16.07

AUTHOR: Aver'yanov, Ye. G.; Vartanov, N. A.; Samoylov, P. S.

TITLE: Determining the energy resolution of a scintillation gamma spectrometer by means of a Co-sixty source

SOURCE: Pribery i tekhnika eksperimenta, no. 2, 1965, 52-53

TOPIC TAGS: spectrometer, gamma spectrometer, scintillation spectrometer

ABSTRACT: The effect of the energy resolution of a NaI(Tl) scintillation spectrometer (for a 1.33-Mev gamma line) upon the ratio of hard-line maximum to between-the-lines minimum for Co⁶⁰ has been studied. In the estimated results, an experimental correction has been introduced which allows for the drooping of the Compton continuum between the lines. The resulting curve permits quick and reliable determination of the energy resolution on the basis of the measured Co⁶⁰ spectrum; the result can be converted into the gamma-line resolution for any other energy value. Orig. art. has: 1 figure and 3 formulas.

Card 1/2

1 56501-05
ACCESSION NR: AP5011870

ASSOCIATION: none

SUBMITTED: 13Feb64

ENCL: 00

SUB CODE: NP

NO REF SOV: 002

OTHER: 007

282
Card 2/2

KONCHALOV, V.N., dotsent; KRAPIVINA, T.Ya., vrach; AVER'YANOV, Yu.F., vrach

Use of a new muscle relaxant bromotilin in anesthesiology. Stov.
nauch. rob. Sar. gos. med. inst. 44:266-271 '64.

(MIRA 18:7)

1. Iz kafedry fa'ul'tetskoy khirurgii imeni Mirotyortseva (zav. -
prof. I.M. Popov'yan [deceased]) Saratovskogo meditsinskogo insti-
tuta (rektor - dotsent N.R. Ivanov).

AVER'YANOV, V.S.

Electromyographic characteristics of exercise and simple movements
of man. Vest.LGU 17 no.21:135-140 '62. (MIRA 15:12)
(ELECTROMYOGRAPHY)

AYER'YANOVA, A.G., insh.; MATVEYEV, Ye.S., insh.

Economic arrangement of powerhouses with horizontal generating units for medium-head hydroelectric power stations.
Gidr. stroi. 30 no.6:9-11 Je '60 (MIRA 13:7)
(Hydroelectric power stations)

AVER'YANOVA, A.G., inzh.

Dual-purpose arch dam. Gidr. stroi. 31 ~~no~~.9:57 S '61.

(MIRA 14:12)

(France--Dams)

(France--Hydroelectric power stations)

AVER'YANOVA, A.G., inzh.

From the material of the Seventh International Congress on
Large Dams. Gidrostroi. 32 no.7:49-56 J1 '62. (MIRA 15:7)
(Italy--Dams)

AVER'YANOVA, A.G., inzh.

Construction of an arch dam in two stages. Gidr. stroi. 32
no.2:50-53 F 62. (MIRA 15:7)
(Adda River, Italy--Hydraulic structures)

AVER'YANOV, S.V.; PODDUBNYI, I.Ya.; AVER'YANOVA, L.A.; TIENKE, Yu.V.

Radiation vulcanization of heterosiloxane rubber. Kauch. i rez.
22 no.8:1-8 Ag '63. (MIRA 16:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo
kauchuka im. S.V. Lebedeva.

1. AVER'YANOVA, A.I.
 2. USSR (600)
 4. Voskresensk District (Bashkiria) - Geology, Structural
 7. Report on the activities of the electric geophysical exploration party in the Voskresensk District of the Bashkir A.S.S.R. in 1944. (Abstract) Izv.Glav.upr.geol. fon. no. 3, 1947
9. Monthly List of Russian Accessions, Library of Congress, March, 1953. Unclassified.

SHAFIR, A.I., prof.; PANSKINSKAYA, N.M.; SMITSKIY, A.A., prof.; AVER'YANOVA, A.V.; KOUZOV, P.A., kand.tekhnicheskikh nauk

Using paper filters for eliminating viruses from the air of ventilated rooms [with summary in English]. Gig. i san. 22 no.9:3-9 S '57.

(MIRA 10:12)

1. Iz Leningradskogo nauchno-issledovatel'skogo sanitarno-gigiyenicheskogo instituta Leningradskogo nauchno-issledovatel'skogo instituta mikrobiologii, epidemiologii i gigiyeny imeni Pastera i Vsesoyuznogo instituta okhrany truda Vsesoyuznogo tsentral'nogo soveta profsoyuzov v Leningrade.

(AIR POLLUTION

viruses, exper. use of filter paper for purification)

(VIRUSES

in air, exper. filtration purification with filter paper.

AVER'YANOVA, A.V.

Dynamics of the immunological structure with regard to diphtheria in different age groups in a period of decreased diphtherial incidence. Trudy Len.inst.epid. i microb. 18:137-146'58.
(MIRA 16:7)

1. Iz sektora epidemiologii Leningradskogo instituta epidemiologii, mikrobiologii i gigiyeny imeni Pastera (zav.I.M.Ansholes).
(LENINGRAD--DIPHTHERIA--PREVENTIVE INOCULATION)
(NOVGOROD--DIPHTHERIA--PREVENTIVE INOCULATION)

AYER'YANOVA, G.A.

River network pattern as a water supply index based on the study
of the Samara River. Izv. Kasa. fil. AN SSSR. Ser. energ. i
vod. khoz. no. 1:119-130 '57. (MIRA 11:10)
(Samara River--Hydrology)

AYER, YANOVA, G.A.

Some results of studies on subsurface feeding of small rivers in the middle Volga Valley. Trudy Kazan. fil. AN SSSR. Ser. energ. i vod. khoz. no.4:70-76 '59. (MIRA 13:8)

1. Otdel energetiki i vodnogo khozyaystva Kazanskogo filiala AN SSSR.

(Volga Valley--Hydrology)

AVER'YANOVA, G.A.; PETROV, G.N.

Prevailing slopes of the earth's surface and their distribution
over the basins of small rivers of the middle Volga Valley.
Izv. Kazan. fil. AN SSSR. Ser. energ. i vod. khoz. no.2:27-44
'61. (MIRA 15:3)
(Volga Valley--Slopes (Physical geography))

AVER'YANOVA, G.A.; PETROV, G.N.

Density of the hydrographic network in the middle Volga Valley.
Izv. Kazan. fil. AN SSSR. Ser. energ. i vod. khoz. no.2:79-95
'61. (MIRA 15:3)

(Volga Valley—Hydrography)

MINEYEVA, I.G.; AVER'YANCVA, I.M.

Distribution of uranium and thorium in granites of central
Kazakhstan. Sov.geol. 5 no.3:83-95 Mr '62. (MDR 15:4)
(Kazakhstan--Uranium) (Kazakhstan--Thorium)

Aver'yanova, K. G.

✓ The toxic properties of potassium chloride for cattle.
M. S. Topchyan and K. G. Aver'yanova. Izvest. Akad.
Nauk Armj. S.S.R., Biol. i Med. Nauki 8, No. 7, 1962
69-62 (1965) (in Russian; Armenian summary 62-5).
Sheep and goats were fed with various doses of KCl. A
single oral dose of 4 g./kg. wt. was fatal to the former but
not to the latter. When fed to goats craving for salt, the
same dose may prove fatal. In doses of 1-2 g./kg. wt.
daily for a period of 10 days to sheep no fatal cases were ob-
served. To follow up the KCl poisoning the drop in leuco-
cyte count is to be observed. J. S. Joffe

USSR / Diseases of Farm Animals. Toxicoses.

R

Abs Jour: Ref Zhur-Biol., No 8, 1958, 35853.

Author : Aver'yanova, K. G.

Inst : Armenian Scientific Research Institute of Animal
Husbandry and Veterinary Science.

Title : The role of Gossipol in Animal Poisoning with
Cotton Seed Oil Cake.

Orig Pub: Tr. Arm. n.-i. in-ta zhivotnovodstva i veteri-
narii, 1956, 179-183.

Abstract: No abstract.

Card 1/1

28

15.9905 2109.1109

4/13/66/000/009/002/012
0051/0029

AUTHORS: Podolskiy, I. A.; Kargin, V. A.; Aver'yanov, S. B.; Trukha, D. V.
Aver'yanov, L. A.; Terent'ev, V. P.

TITLE: The Vulcanization of Polydimethylsiloxane Rubber Using γ Radiation

PERIODICAL: Kaucuk i Resina, 1966, No. 9, pp. 5 - 15

TEXT: Vulcanizates produced by the ionizing radiation method were found to have improved properties, since the formation of transverse bonds at relatively low temperatures can be accomplished without the use of chemical vulcanizing agents (Ref. 1 - 6). The vulcanization process of polydimethylsiloxanes is accomplished according to the free-radical mechanism (Mn, 1,4,7,8,2,5,6,10, 11 - 14). The results are cited of experimental work conducted in order to increase the temperature-stability of polydimethylsiloxanes (PDMS)-based vulcanizates and to improve their physico-mechanical properties by using the radiation method of vulcanization combined with a change in the preparation of the rubber mixture and by introducing new components into the rubber composition. Data with an activity of 1,500 g-sec. of radium was used as the source of the gamma-radiation. The dose was 0.25 - 0.5 Mr/h. It is pointed out that the characteristic feature of radiation vulcanization appears to be the absorption energy by the filler, the possibility of further redistribution of the energy by the polymer and the filler and the formation of a chemical bond between them. Rubbers with satisfactory tensile and elastic properties could be obtained by the radiation vulcanization of PDMS in composition with the introduction of various additives into the rubber mix containing γ -[11] (H-11) powder. It was found that after a lengthy period of thermal aging at 200°C, the rubbers were found to have increased thermal resistance. The radiation vulcanization method in the thermal resistance by further refining the rubber mixture increases in the thermal resistance could be achieved. Radiation vulcanization of polydimethylsiloxane rubber filled with furnace carbon black could be produced with relatively high physico-mechanical properties and an elevated thermal resistance. The vulcanizates were current-conducting. Radiation vulcanizates of polydimethylsiloxane rubber filled with powdered silica gel and furnace carbon blacks are much superior to the peroxide vulcanizates in their temperature stability. At a temperature of 200°C radiation vulcanizates of PDMS rubber were obtained with considerably high physico-mechanical properties. The tensile properties of radiation vulcanizates filled with H-11 powder silica gel could be considerably increased by introducing iron oxides or aluminum oxides into the rubber mixture.

tion appears to be the absorption energy by the filler, the possibility of further redistribution of the energy by the polymer and the filler and the formation of a chemical bond between them. Rubbers with satisfactory tensile and elastic properties could be obtained by the radiation vulcanization of PDMS in composition with the introduction of various additives into the rubber mix containing γ -[11] (H-11) powder. It was found that after a lengthy period of thermal aging at 200°C, the rubbers were found to have increased thermal resistance. The radiation vulcanization method in the thermal resistance by further refining the rubber mixture increases in the thermal resistance could be achieved. Radiation vulcanization of polydimethylsiloxane rubber filled with furnace carbon black could be produced with relatively high physico-mechanical properties and an elevated thermal resistance. The vulcanizates were current-conducting. Radiation vulcanizates of polydimethylsiloxane rubber filled with powdered silica gel and furnace carbon blacks are much superior to the peroxide vulcanizates in their temperature stability. At a temperature of 200°C radiation vulcanizates of PDMS rubber were obtained with considerably high physico-mechanical properties. The tensile properties of radiation vulcanizates filled with H-11 powder silica gel could be considerably increased by introducing iron oxides or aluminum oxides into the rubber mixture.

ture, as well as by preliminary refining of the rubber mixture increasing their homogeneity. They surpass the corresponding peroxide vulcanizates in their thermal resistance in closed systems at an elevated pressure and are characterized by their higher values of elasticity restoration after various periods of thermal aging. By their lower values of residual compression deformation at 200°C, by a lower weight loss during thermal aging and a somewhat higher frost-resistance, the radiation vulcanizates produced are distinguished from their peroxide vulcanizates. The radiation vulcanization of PDMS rubber filled with silica gel and furnace carbon blacks is much superior to the peroxide vulcanizates in their temperature stability. At a temperature of 200°C radiation vulcanizates of PDMS rubber were obtained with considerably high physico-mechanical properties. The tensile properties of radiation vulcanizates filled with H-11 powder silica gel could be considerably increased by introducing iron oxides or aluminum oxides into the rubber mixture.

ABSTRACT: Vsesoyuzny nauchno-issledovatel'skiy institut sinteticheskogo kautchuka im. S.V. Lebedeva (All-Union Scientific Research Institute of Synthetic Rubber im. S.V. Lebedev).

Card 3/3

15.9205

31619
S/138/61/000/012/001/008
A051/A126

AUTHORS: Aver'yanov, S.V.; Poddubnyy, I.Ya.; Trenke, Yu.V.; Aver'yanova, L.A.

TITLE: Vulcanization of methylsiloxane rubber with a low vinyl group content, under action of γ -emission

PERIODICAL: Kauchuk i rezina, no. 12, 1961, 1 - 7

TEXT: An investigation was conducted to determine the conditions for producing highly heat-resistant radiation vulcanizates of the CKTB (SKTV) rubber. The possibility was studied for producing rubbers of even higher heat-resistance by introducing compounds into the rubber mix which would increase the magnitude of the intermolecular action in the system and the effective tensility of the bonds in the vulcanizates, as well as by changing the conditions of emission. Laboratory samples of methylvinylsiloxane SKTV-0.07 rubber, with a molecular weight of 400 - 500 thousand, were investigated. The energy of the γ -emission dose was held within the limits of 0.28 to 0.72 Mr/h. A study of the tensility of the γ -emission vulcanizates of the SKTV-0.07 rubber filled with various silica gels and carbon blacks, showed that the introduction of met-

Card 1/3

Vulcanization of methylsiloxane rubber with a

31619
S/138/61/000/012/001/008
A051/1126

als with varying valencies into the silica gel filled rubber mixes increases the physico-mechanical indices considerably. Preliminary refining of the rubber mixes further increases the physico-mechanical indices. Experiments showed that rubbers, retaining satisfactory tensile and elastic properties, can be produced from the above-mentioned sample, after thermal aging at a temperature of 380°C. The additional increase of the heat-resistance in the given rubbers is achieved by radiation vulcanization in a vacuum and by introducing a halogenated polymer into the rubber mixture. In the latter case, vulcanizates are produced which retain satisfactory tensility and elasticity after short-time aging at 400°C. A study of the effect of metal compounds of varying valencies and of the halogenated polymer after introduction into the rubber mix revealed that the former, being centers of secondary electron radiation, lead to the formation of more regular vulcanization network and, subsequently, to a further increase in the heat-resistance of the radiation vulcanizates. The SKTV radiation vulcanizates show a characteristic intensified destruction in the initial period of the thermal aging, which is thought to be connected with the presence of a certain number of weak oxygen-containing transverse bonds of the

- C - O - O - C - type in the radiation vulcanizates. These bonds, in turn,

Card 2/3

31619

S/138/61/000/012/001/008

Vulcanization of methylsiloxane rubber with a

A051/1126

are formed through the reaction of oxidation of the molecular chains of the polysiloxanes under the action of irradiation. The radiation vulcanizates of the SKTV-0.07 rubber were found to exceed corresponding peroxide vulcanizates in their heat-resistance and thermal stability in a closed system at 200 and 250°C and at increased pressure. The former have a lower residual deformation after compression at 150 - 250°C and a somewhat higher frost-resistance. There are 5 tables, 1 figure and 10 references: 6 Soviet-bloc and 4 non-Soviet-bloc. The reference to the most recent English-language publication reads as follows: L. E. St. Pierre, H.A. Dewhurst, J. Phys. Chem., 64, no. 8, 1,060 (1960).

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kau-
chuka im. S.V. Lebedeva (All-Union Scientific-Research Institute
of Synthetic Rubber im. S.V. Lebedev)

Card 3/3

25724

S/020/61/139/003/023/025

B127/B206

159450 1436,1526,2209

AUTHORS: Poddubnyy, I. Ya., Aver'yanov, S. V., and Aver'yanova, E. A.

TITLE: Type and stability of crosslinks in radiation vulcanizates of polysiloxane rubber

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 139, no. 3, 1961, 651-653

TEXT: The authors had previously established that irradiated vulcanization of polydimethyl siloxane rubber CKT (SKT) leads to higher thermal stability of the rubber obtained (Kauzhuk i rezina, 19, no. 9, 5 (1960)). The same occurs in the case of polymethyl vinyl siloxane rubber CKTB (SKTV) with a content of about 0.1 % vinyl groups. The thermal stability of vulcanizates developed through irradiation may be increased by previous addition of metal compounds of variable valency or SiO_2 . This thermal stability

exceeds that of peroxide vulcanization. This cannot be explained only by the presence of especially active radicals, but it is also linked with the structure of the network of the vulcanizates developed through irradiation. While $\rightarrow\text{Si}-\text{CH}_2-\text{Si}\leftarrow$ and $\rightarrow\text{Si}-\text{Si}\leftarrow$ crosslinks are formed during peroxide

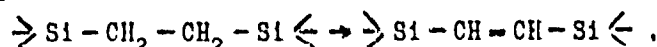
Card 1/3

2572

S/020/61/139/003/023/025
B127/B2C6

Type and stability of crosslinks in...

vulcanization of polydimethyl siloxanes, $\rightarrow\text{Si}-\text{CH}_2-\text{CH}_2-\text{Si}\leftarrow$ is to be assumed as the basic type of crosslinks for radiation vulcanizates which develop by recombination of free $\rightarrow\text{Si}-\text{CH}_2$ radicals. This difference contributes to the increase in thermal stability, both due to higher stability of the C-C bond compared with the Si-Si or Si-C bond, and to formation of double bonds at higher temperatures after the reaction



where no break of crosslinks and no destruction of radiation vulcanizates occurs. Longer CH_2 chains may be formed during vulcanization of SKTV rubber by means of γ irradiation. Vulcanizates having a more uniform structure of the network as compared with peroxide vulcanizates are obtained by irradiation. Similar results were obtained with experiments in vacuum under prevention of weak crosslinks with oxygen: $-\overset{|}{\text{C}}-\text{O}-\text{O}-\overset{|}{\text{C}}-$. The effect of admixed metal compounds with variable valency is explained by formation of centers of secondary electron radiation favoring a uniform structure formation. There are 3 tables and 2 Soviet-bloc references.

Card 2/3

Type and stability of crosslinks in...

25724
S/020/61/139/003/023/025
B127/B206

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut
sinteticheskogo kauchuka im. S. V. Lebedeva (All-Union
Scientific Research Institute of Synthetic Rubber imeni
S. V. Lebedev)

PRESENTED: February 15, 1961, by S. S. Medvedev, Academician

SUBMITTED: February 8, 1961

Card 3/3

BORISOV, S.N.; SVIRIDOVA, N.G.; AVER'YANOVA, L.A.

Synthesis and vulcanization of methylethylsiloxane rubbers. Kauch.i rez. 21 no.9:1-4 S '62. (MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S.V. Lebedeva.
(Rubbers, Synthetic)
(Siloxanes)

L 14502-66 EWT(m)/EWP(j) RN

ACC NR: AP6006364

(A)

SOURCE CODE: UR/04.13/66/000/002/0096/0096

INVENTOR: Aver'yanov, S. V.; Poddubnyy, I. Ya.; Aver'yanova, L. A.; Trenke, Yu. V.

ORG: none

TITLE: Thermal stabilization of polysiloxanes Class 39, No. 178109

SOURCE Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1966, 96

TOPIC TAGS: polysiloxane, thermal stability, dialkyl sebacate

ABSTRACT: An Author Certificate has been issued for a preparative method for the thermal stabilization of polysiloxanes, involving the use of dialkyl sebacates as the stabilizing additives. [BO]

SUB CODE: 11/ SUBM DATE: 09Dec63/ ATD PRESS: 4/99

PC

Cord 1/1

UDC: 678.84:678.048

GOBZA, R.N., red.; GELIN, M.M., red.; KRIVOSHEYEV, B.S., red.;
SORIN, Ye.Ye., red.; VANIKEYEVICH, L.A., red.;
AVER'YANOVA, L.B., red.

[Adjusting and planning systems of industrial ventilation
and air conditioning] Naladka i proektirovanie sistem pro-
myshlennoi ventilatsii i konditsionirovaniia vozdukha;
tematicheskii sbornik. Moskva, TSentr. biuro tekhn. infor-
matsii, 1964. 157 p. (MIRA 17:12)

1. Moscow. Proyektnyy institut "Proyektpromventilyatsiya."

AVER'YANOVA, L. L. and PLETSHITY, D. F.

"The Significance of the Time Factor in the Development of Immunity,"
Trudy Akademii Meditsinskikh Nauk SSR (Works of the Academy of Medical Sciences USSR),
Moscow, Vol 19, 1952, pp 247-254.

AMER'YANOVA, L. L.

AMER'YANOVA, L. L.: "The time factor in tetanus immunity." Moscow, 1955. Acad
Med Sci USSR. Inst of Normal and Pathological Physiology. (Dissertation
for the Degree of Candidate of Medical Sciences)

SC: Knizhnaya Intelligentsia No. 47, 19 November 1955. Moscow.

"APPROVED FOR RELEASE: 06/06/2000

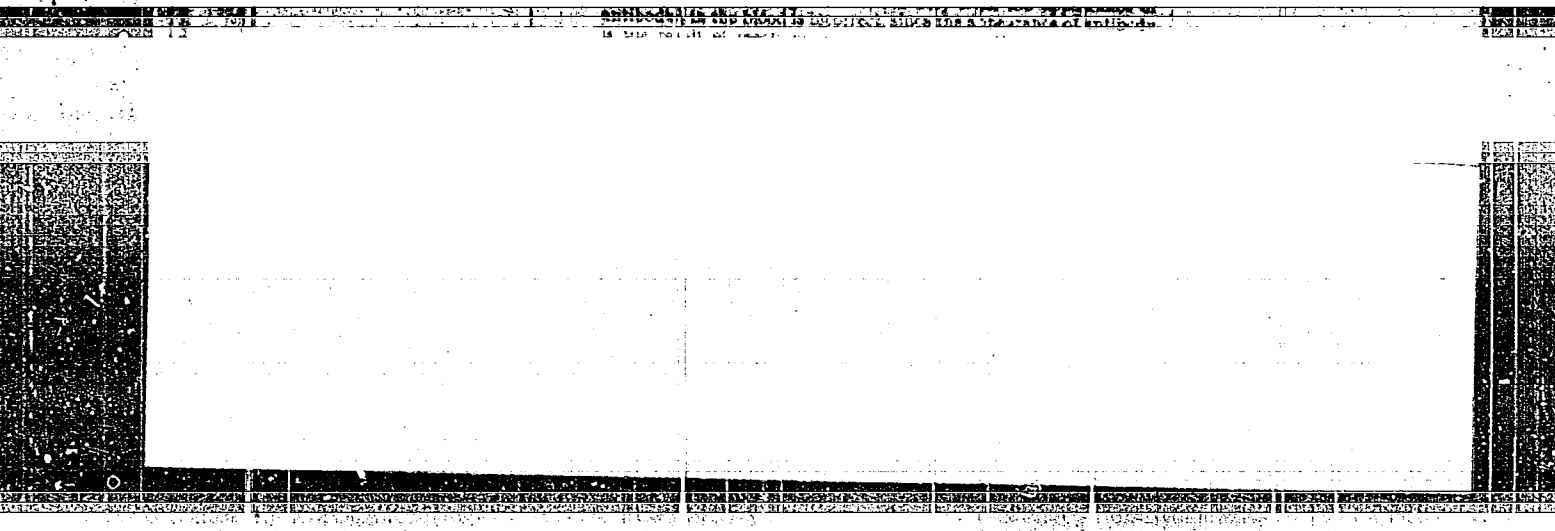
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APPROVED FOR RELEASE: 06/06/2000

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AVERLANOVA, L.L.

USSR /Microbiology. Medical and Veterinary
Microbiology.

F-6

Abs Jour: Referat. Zh.-Biol., No. 9, 1957, 35685

Author : Averlanova, L.L.

Title : On The Therapy of Experimental Tetanus With
Tetanus Antitoxin

Orig Pub: Zh. mikrobiol., epidemiol., i immunobiologii,
1956, No. 8, 87-91

Abstract: No abstract.

Card 1/1

LAZAREVA, Ye.N.; PETROVA, M.A.; AVTSYN, A.P.; BEREZINA, Ye.K.;
SEMICH, A.I.; RYKALEVA, A.M.; AVER'YANOVA, L.L.; GLAGOVSKAYA, R.S.

Sodium salt of biomy'cin. Antibiotiki, Moskva 9 no.2:3-6 Mar-Apr
56 (MLRA 9:3)

1. Otdel eksperimental'noy terapii (zav.-chlen-korrespondent
AMN SSSR prof. Z.V. Yermol'yeva) Vsesoyuznogo nauchno-issledovatel'-
skogo instituta antibiotikov.

(CHLORTETRACYCLINE
sodium salt, pharmacol.)

AVER'YANOVA, L.L.

Therapy of experimental tetanus with tetanus anatoxin. Zhur.mikrobiol.
epid. i immun. 27 no.8:87-91 Ag '56. (MIRA 9:10)

1. Iz Institutapatologicheskoy fiziologii i eksperimental'noy terapii
AMN SSSR

(TETANUS, experimental,
eff. of tetanus anatoxin (Rus))

AVERYANOVA, L.L.; GLAGOVSKAYA, R.S.; RYKALEVA, A.M.; LAZAREV, Ye. N. (Cand. of Bio. Sci.)

"Pharmaceutical Forms of Antibiotics,"

p. 251 Ministry of Health USSR Proceedings of the Second All-Union Conference on Antibiotics, 31 May - 9 June 1957. p. 405, Moscow, Medgiz, 1957.

EXCERPTA MEDICA Sec 6/Vol 13/6 Internal Medicine June 59

2657. A METHOD FOR DETERMINING THE CONCENTRATION OF SIMULTANEOUSLY APPLIED PENICILLIN AND STREPTOMYCIN IN THE BLOOD SERUM (Russian text) - Averyanova L. L. - ANTIBIOTIKI 1957, 2/3 (53-55)

A method of simultaneous determination of the concentration of penicillin and streptomycin in the blood serum is described. The absorption of a new combined compound - streptopenicillin - is studied; an i.m. injection of 15,000 U. per kg. of this preparation ensures rapid absorption of both antibiotics and their lasting presence in therapeutic concentrations in the blood.

(S)

LAZAREVA, Ye.n.; GLAGOVSKAYA, R.S.; AVER'YANOVA, L.L.; SAVEL'YEVA, A.M.

Penicillin-ecmo. Antibiotiki 2 no.5:49-53 S-O "57. (MIRA 10:12)

1. Otdel eksperimental'noy terapii Vsesoyuznogo nauchno-issledovatel'-
skogo instituta antibiotikov.

(PENICILIN, administration,
with ecmoline (Rus))

(ANTIBIOTICS, administration,
ecmoline with penicillin (Rus))

USSR / General Problems of Pathology. Immunity.

U

Abs Jour: Ref Zhur-Biol., No 9, 1958, 41869.

Author : ~~Aver'yanova, L. L.~~

Inst : Not given.

Title : The Effect of Antibiotics on the Immunological
Reactivity of the Organism.

Orig Pub: Zh. microbiol. epidemiol i immuncbiologii, 1957,
No 4, 37-38.

Abstract: Dogs received, during a period of 3 years, an average of 150 single doses of penicillin, biomyacin and terramycin. No differences were noted in the agglutinin titer of animals immunized with typhoid vaccine as compared with controls.

Card 1/1

BYKOVA, M.A.; AVER'YANOVA, L.L.

Method for determining chlortetracycline concentrations in animal
liquids, organs and tissues with the aid of paper disks. Antibiotiki
4 no.6:96-100 N-D '59. (MIRA 13:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(CHLORTETRACYCLINE chem.)

YERMOL'YEVA, Z.V.; LAZAREVA, Ye.N.; VOINOVA, T.I.; AVER'YANOVA, L.L.;
ZATSEPINA, N.D.

Prospects for the use of dibiomycin in treating trachoma. Antibiotiki
6 no.9:58-61 S '61. (MIRA 15:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov i
Nauchno-issledovatel'skiy institut glaznykh bolezney imeni Gel'mgol'tsa.
(AUREOMYCIN) (CONJUNCTIVITIS, GRANULAR)

LAZAREVA, Ye.N.; BELOZEROVA, O.P.; AVER'YANOVA, L.L.; RIKALEVA, A.M.

Dibiomycin -- a chlortetracycline for prolonged activity. Antibiotiki
6 no.10:863-867 0 '61. (MIRA 14:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(AUREOMYCIN)

PLETSITYY, D. F., KRASNYSKAYA, V. G., Institute of Normal and Pathological Physiology, Academy of Medical Sciences USSR [1962 positions] - "Changes in egg-white lysozyme content during embryogeny processes" Session 1; PLETSITYY, D. F. - Co-Chairman, Session 3; PLETSITYY, D. F., Institute of Normal and Pathological Physiology, Academy of Medical Sciences USSR, Moscow [1962 position]; AVER'YANOVA, L. L., FIDEL'MAN, E. G., both of All-Union Scientific Research Institute of Antibiotics [1961 positions] - "Antibiotics and lysozyme" Session 3; PLETSITYY, D. F., Institute of Normal and Pathological Physiology, Academy of Medical Sciences USSR, Moscow [1962 position]; FIDEL'MAN, E. G., All-Union Scientific Research Institute of Antibiotics [1961 position]; GORSHUNOVA, L. P., Institute of Virology imeni D. I. Ivanovskiy, Academy of Medical Sciences USSR [1962 position] - "Lysozyme and immunogenesis - New findings"
Report to be presented at The Third International Symposium on Fleming's Lysozyme, Milan Italy, from 3-5 Apr '64

AVER'YANOVA, L.L.; FIDEL'MAN, Ye.S.

Effect of a single penicillin injection on the blood lysozyme level in rabbits. Antibiotiki 9 no.1:38-41 Ja '64.

(MIRA 18:3)

1. Laboratoriya immunopatologii serdechno-sosudistoy sistemy (zav. - prof. D.P.Pletsitsiy) Instituta normal'noy i patologicheskoy fiziologii AMN SSSR, Moskva.

AVER'YANOVA, L.I.; FIDEL'MAN, Ye.S.

Effect of multiple intramuscular penicillin injections on the
content of lysozyme in the rabbit blood. Antibiotiki 9 no.5:

438-442 My '64.

(MIRA 18:2)

1. laboratoriya immunopatologii serdechno-sosudistoy sistemy
(zav. -- prof. D.F. Pletsitsiy) Instituta normal'noy i patologicheskoy
fiziologii AMN SSSR, Moskva.

AVER'YANOVA, L.L.; FIDEL'MAN, Ye.S.; VOL'MAN, I.B.

Changes in the content of lysozyme in the saliva of rheumatic children under the effect of bicillin therapy. Antibiotiki 10 no.5:445-447 My '65. (M.RA 18:6)

1. Laboratoriya Immunopatologii serdechno-sosudistoy sistemy (zav. - prof. D.P. Plitsitsiy) Instituta normal'noy i patologicheskoy fiziologii AMN SSSR i Detskaya poliklinika No.30, Moskva.

S/078/61/006/002/017/017
B017/B054

AUTHORS: Aver'yanova, L. N., Belyayev, I. N.

TITLE: X-Ray Phase Analysis of the Systems BaTiO_3 - $\text{Pb}_3(\text{PO}_4)_2$,
 PbTiO_3 - $\text{Ba}_3(\text{PO}_4)_2$

PERIODICAL: Zhurnal neorganicheskoy khimii, 1961, Vol. 6, No. 2,
pp. 501 - 503

TEXT: The systems BaTiO_3 - $\text{Pb}_3(\text{PO}_4)_2$ and PbTiO_3 - $\text{Ba}_3(\text{PO}_4)_2$ were studied by X-ray phase analysis. The investigation was made by the powder method with a γ -C-70-K1 (URS-70-K1) apparatus. A table indicates the lattice spacings and the intensity lines of the X-ray pictures of PbTiO_3 and of a mixture of 40% of BaTiO_3 + 60% of $\text{Pb}_3(\text{PO}_4)_2$. The line intensities of lead titanate are weakened by addition of barium titanate; they disappear completely in the X-ray pictures of specimens with 5, 9, and 10% of

Card 1/3

X-Ray Phase Analysis of the Systems
 BaTiO_3 - $\text{Pb}_3(\text{PO}_4)_2$, PbTiO_3 - $\text{Ba}_3(\text{PO}_4)_2$

S/078/61/006/002/017/017
 B017/B054

BaTiO_3 . The reaction between barium titanate and lead orthophosphate proceeds in the solid phase at 950 - 1000°C. The X-ray pictures of specimens of the system $\text{Ba}_3(\text{PO}_4)_2$ - PbTiO_3 with 37, 47, 50, 53, and 70% of PbTiO_3 contain only lines that are characteristic of lead titanate.

A new reaction product between barium titanate and lead orthophosphate was not found. Yu. V. Izraelkin is mentioned. There are 1 table and 8 Soviet references.

SUBMITTED: April 12, 1960

Card 2/3

8/078/61/006/002/017/017
B017/B054

PbTiO ₃		40% BaTiO ₃ + +60% Pb ₃ (PO ₄) ₂		PbTiO ₃		40% BaTiO ₃ + +60% Pb ₃ (PO ₄) ₂	
I	d, ÅX	I	d, ÅX	I	d, ÅX	I	d, ÅX
4	3,83	2	3,86	4	1,38	4	1,37
2	3,54	1	3,52	1	1,35	Don	—
1	3,01	Don	—	5	1,33	5	1,33
9	2,81	8	2,81	5	1,29	4	1,29
0	2,74	4	2,73	3	1,23	2	1,23
1	2,45	—	—	5	1,18	5	1,18
8	2,28	7	2,28	5	1,15	4	1,14
2	2,05	2	2,05	2	1,12	1	1,12
1	2,01	1	2,00	2	1,088	1	1,099
7	1,93	6	1,93	9	1,080	7	1,081
1	1,73	1	1,72	—	—	2	1,071
4	1,64	2	1,64	9	1,057	8	1,056
9	1,59	9	1,59	9	1,044	8	1,043
1	1,51	Don	—	2	1,012	1	1,014
5	1,41	5	1,41	2	1,000	1	1,001

Card 3/3

S/O78/62/007/006/023/024
B110/B144

AUTHORS: Belyayev, I. N., Aver'yanova, L. N., Belyayeva, I. I.

TITLE: X-ray phase analysis of $\text{MeTiO}_3\text{-MeWO}_4(\text{MoO}_4)$ systems

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 6, 1962, 1476

TEXT: The systems $\text{MgTiO}_3\text{-MgWO}_4$, $\text{CaTiO}_3\text{-CaWO}_4$, $\text{SrTiO}_3\text{-SrVO}_4$, $\text{BaTiO}_3\text{-BaWO}_4$, $\text{ZnTiO}_3\text{-ZnWO}_4$, $\text{MgTiO}_3\text{-MgMoO}_4$, $\text{CaTiO}_3\text{-CaMoO}_4$, $\text{SrTiO}_3\text{-SrMoO}_4$, $\text{BaTiO}_3\text{-BaMoO}_4$, and $\text{ZnTiO}_3\text{-ZnMoO}_4$ were subjected to qualitative radiographic phase analyses. MgTiO_3 and ZnTiO_3 were prepared from TiO_2 and the corresponding metal oxides by sintering at 1280°C for 15 hrs; SrWO_4 was prepared from solutions of Sr acetate and Na_2WO_4 ; ZnWO_4 from the oxides sintered at 1280°C for 15 hrs; MgMoO_4 and ZnMoO_4 from the corresponding oxides by sintering with MoO_3 at 1000°C for 15 hrs; SrMoO_4 from SrCO_3 and MoO_3 ; the other compounds were commercial products. These materials were ground, Card 1/2

X-ray phase analysis of...

5/078/62/007/006/023/024
B110/B144

pressed into tablets, and heated. Well-sintered refractory material was obtained from 50-75 mole% titanate, by annealing at 1000-1200°C for 4-15 hrs. A YOC-70-K-1 (URS-70-K-1) apparatus in PKA (RKD) chambers was used for the radiographic analyses under unfiltered Fe and Cu-K_α radiation.

Results: Mixtures of the initial substances were found, but neither compounds nor solid solutions; this indicates the presence of simple, eutectic systems alone. There is 1 table.

SUBMITTED: November 10, 1961

Card 2/2

REIZAYEV, I.N.; AVER'YANOV, I.N.; *ibid.*, 1977.

X-ray phase-shift study of the systems $PbMoO_4 - PbMoO_3$ -
 $PbMoO_4$, $PbHfO_3$ - $PbMoO_4$, $PbHfO_3$ - $PbMoO_3$. Izv. AN SSSR.
Necrg. mat. 1 no.7:1184-1188 1977 165. (MIRA 12:9)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.

GLEYM, V.G., prof., doktor tekhn. nauk; SHIDLOVSKIY, B.R., assistant;
AVER'YANOVA, L.N., kand. khim. nauk; SOLOVANOVA, T.G., assistant;
DYSKINA, Ye.G.

Iron corrosion in boiler waters with increased alkalinity.
Trudy RIIZHT no.28:120-138 '59. (MIRA 16:7)

(Boilers---Corrosion)

ACCESSION NR: AP4024996

S/0070/54/009/002/0280/0281

AUTHORS: Belyayev, I. N.; Aver'yanova, L. N.; Belyayeva, I. I.

TITLE: New compounds with the structure of pyrochlore

SOURCE: Kristallografiya, v. 9, no. 2, 1964, 280-281

TOPIC TAGS: pyrochlore, lead, cadmium, titanium, zirconium, tin, tungsten, solid phase, cubic structure, defect, oxygen, x ray characteristic

ABSTRACT: The authors have presented data on new compounds having the general formula $A_2(B_{2-x}B'_x)O_{6+x}$, where A represents ions of Pb and Cd; B ions of Ti, Zr, and Sn; and B' the hexavalent ion of W. These compounds were synthesized by solid-phase reactions. The x-ray characteristics of hkl lines are shown in Table 1 on the Enclosures. From these it may be seen that all the synthesized compounds have the cubic structure of pyrochlore with defects about oxygen. The authors point out that attempts to replace the W ion by Mo and the Pb or Cd ion by other bivalent metals have not yet been successful. Orig. art. has: 2 tables.

Card: 2/12

ACCESSION NR: AP4024996

ASSOCIATION: Rostovskiy-na-Donu gosudarstvennyy universitet (Rostov-on-Don State University)

SUBMITTED: 26Jun63

DATE ACQ: 16Apr64

ENCL: 02

SUB CODE: PH

NO REF SOV: 002

OTHER: 003

Card 2/42

BELYAYEV, I.N.; AVER'YANOVA, L.N.; BELYAYEVA, I.I.

X-ray and dilatometric studies of the systems $PbZrO_3 - PbWO_4(NaO_2)$.
Izv. AN SSSR. Neorg. mat. 1 no.3:392-394 Mr '64.

(MIRA 18:6)

1. Rostovskiy gosudarstvennyy universitet.

L 2287-66 EWP(e)/EWT(m)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c) IJP(c) JD/JG

ACCESSION NR: AP5022273

UR/0363/65/001/007/1184/1188
541.123.2

AUTHOR: Belyayev, I. N.; Aver'yanova, L. N.; Belyayeva, I. I.

TITLE: X-ray phase study of the systems "PbSnO₃" - PbWO₄, "PbSnO₃" - PbMoO₄, PbHfO₃ - PbWO₄, and PbHfO₃ - PbMoO₄.

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 7, 1965, 1184-1188.

TOPIC TAGS: ²⁷lead compound, ²⁷tin compound, ²⁷tungsten compound, ²⁷molybdenum compound, ²⁷hafnium compound, ferroelectric material

ABSTRACT: The paper continues a study of the nature of solid-state reactions in systems involving ferroelectrics and antiferroelectrics. The pressed and sintered samples were analyzed by X-ray powder techniques. It was found that in the "PbSnO₃" - PbWO₄ system (where "PbSnO₃" is a mixture of 50 mole % PbO and 50 mole % SnO₂), the compound 3PbSnO₃·PbWO₄ is formed at 700-900C. At 900C, the compound begins to decompose into the original components. In the PbHfO₃ - PbWO₄ system, if the pressing preceding the sintering is carried out under a pressure of no less than 100 kg/cm² and the firing temperature is 800-1000C, the compound

Card 1/2

L 2287-66

ACCESSION NR: AP5022273

2
2PbHfO₃·PbWO₄ is formed. The compounds observed have pyrochlore-type crystal lattices, and the unit cells are expressed by the formulas Pb₂(Sn_{1.5}W_{0.5})O_{6.5} and Pb₂(Hf_{1.33}W_{0.66})O_{6.6} with constant A equal to 10.52 and 10.66 Å, respectively. In the "PbSnO₃" - PbMoO₄ system at 600-900°C and compacting pressure (preceding the firing) of 50 kg/cm² and in the PbHfO₃ - PbMoO₄ system at 800°C and a compacting pressure of 100 kg/cm², no chemical reactions are observed. Orig. art. has: 1 figure and 3 tables.

ASSOCIATION: Rostovskiy-na-Donu gosudarstvennyy universitet (Rostov-on-Don State University)

SUBMITTED: 24Mar65

ENCL: 00

SUB CODE: IC, G-C

NO REF SOV: 009

OTHER: 003

Card 2/2 *SP*

ACC NR: AF6025698

SOURCE CODE: UR/0078/66/011/005/1183/1138

AUTHOR: Bolyayov, I. N.; Aver'yanova, L. N.; Bolyayeva, I. I.

ORG: none

TITLE: Solid-phase reactions of divalent metal titanates

SOURCE: Zhurnal neorganicheskoy khimii, v. 11, no. 5, 1966, 1183-1188

TOPIC TAGS: titanate, sulfate, phosphate

ABSTRACT: X-ray diffraction analysis was used to study the solid-phase reactions in the systems $\text{MeTiO}_3\text{-PbSO}_4$ and $\text{MeTiO}_3\text{-Pb}_3(\text{PO}_4)_2$, constituting diagonal sections of the ternary reciprocal systems $\text{Me,Pb} \parallel \text{TiO}_3, \text{SO}_4(\text{PO}_4)$, where $\text{Me} = \text{Mg, Ca, Sr, Ba, Zn, Cd}$, in the 600-1000°C range. It was found that in those ternary systems, where $\text{Me} = \text{Ca, Sr, Ba}$, and also in the $\text{Mg,Pb} \parallel \text{TiO}_3, \text{PO}_4$ system at 700-1000°C, in the course of 20 hr, a substantial displacement of the equilibria $\text{MeTiO}_3 + \text{PbSO}_4(\text{PO}_4) \rightleftharpoons \text{PbTiO}_3 + \text{MeSO}_4(\text{PO}_4)$ takes place to the right, i. e., to the side of a pair of salts in which a cation with an 18+2 electron shell (Pb) combines with an anion containing an atom with an unfilled d subshell (Ti). Thus, all the indicated reactions are irreversible and reciprocal with stable salt pairs $\text{PbTiO}_3 + \text{MeSO}_4(\text{PO}_4)$. Because of the presence of the exchange product (lead titanate) and original titanate (MeTiO_3) in the calcined samples, the systems $\text{Zn,Pb} \parallel \text{TiO}_3, \text{SO}_4$, $\text{Cd,Pb} \parallel \text{TiO}_3$, and also $\text{Mg,Pb} \parallel \text{TiO}_3, \text{SO}_4$ are irreversible and reciprocal. The appearance of the exchange product in them coincides with the appear-

Card 1/2

UDC: 546.824:541.124-16

HUNGARY

TAKACS, Istvan, and ARVAY, Sander, Gynecological Clinic of the University Medical School (Orvostudományi Egyetem Nőgyógyászati Klinikája), Debrecen.

"Some Peculiarities of the Biological Aging Process of Collagen Fibers"

Budapest, Acta Physiologica Academia Scientiarum Hungaricae, Vol 30, No 2, 1966; pp 135-145.

Abstract [Article in German]: It was observed that the collagen fibers of the rat tail are extensively subject to aging during storage. The rate of aging of the stored fibers is influenced by the age of the animals and the length of storage. The rate of biological aging of stored collagen fibers is the same as that of living fibers. 3 References, by Hungarian authors published in Swiss journal. (Manuscript received 29 Nov 65).

1/1

- 56 -

AYER'YANOVA, P.S.

ISAKOV, I.S., prof., admiral flota v otstavke, otv.red.; SHULYKIN, V.V., akademik, inzh.-kapitan 1 ranga, zamestitel' otv.red. po II tomu; DEMIN, L.A., dotsent, kand.geograf.nauk, inzh.-kapitan 1 ranga, glavnyy red.; ABAN'KIN, P.S., admiral, red.; VIZE, V.Yu., red.; GERASIMOV, I.P., red.; GLINKOV, Ye.G., inzh.-kontr-admiral, red.; DROZDOV, O.A., prof., doktor geograf.nauk, red.; ZOZULYA, F.V., vitse-admiral, red.; PAVLOVSKIY, Ye.N., akademik, general-leytenant meditsinskoy sluzhby, red.; POGOSYAN, Kh.P., prof., doktor geograf.nauk, red.; RUDOVITS, L.F., doktor geograf.nauk, red.; SKORODUMOV, L.A., kontr-admiral, red.; SHIRSHOV, P.P., akademik, red. [deceased]; BASHILOV, G.Ya., inzh.-kapitan 2 ranga, uchenyy sekretar'; SEREGIN, M.P., kapitan 1 ranga, red.kart; RYABCHIKOV, S.T., podpolkovnik, red.kart; YEGOR'YEVA, A.V., kand.geograf.nauk, red.kart; AYER'YANOVA, P.S., kand.geograf.nauk, red.kart; BUGORKOVA, O.S., red.kart; GAFONOVA, A.A., red.kart; DMITRIYEVA, T.V., red.kart; DOTSENKO, Ye.I., red.kart; KONTUKOVA, L.G., red.kart; KOMOLOVA, Ye.N., red.kart; LUKANOVA, L.S., red.kart; SMIRNOVA, V.G., kand.geograf.nauk, red.kart; CHECHULINA, Ye.P., red.kart; SHKOL'NIKOV, A.M., red.kart; GRIN'KO, A.M., tekhn.red.; IVANOVA, M.A., tekhn.red.; MOROZOVA, A.F., tekhn.red.

[Marine atlas] Morskoi atlas. Otv.red. I.S. Isakov. Glav.red. L.A. Demin. Izd. Morskogo general'nogo shtaba. Vol.2 [Physical geography] Fiziko-geograficheskii. Zamestitel' otv.red. po II tomu V.V. Shuleikin. 1953. 76 maps. (MIRA 12:1)

1. Russia (1923- U.S.S.R.) Voenno-morskoye ministerstvo. 2. Chlen-korrespondent Akademii nauk SSSR (for Vize, Gerasimov).
(Ocean--Maps) (Harbors--Maps)

AVIKR'YANOVA, T.

In the technical council. Leg. prom. 16 no.8:49 Ag '56. (MIRA 10:12)

1. Uchenyy sekretar' seksii shveyroy promyshlennosti Tekhnicheskogo
soveta Ministerstva legkoy promyshlennosti SSSR.
(Clothing industry)

AVER'YANOVA, T. Inshener.

Conference of engineers, technicians, and innovators of the
sewing industry. leg. prom. 17 no. 5:53 My '57. (MIRA 10:6)
(Clothing industry)

L 11264-56 FBD/ENT(1)/TWT(m)/EEC(k)-2/L/EWP(t)/EWP(k)/EWP(b)/EWA(m)-2/EWA(h)/EWA(z)
 ACC NR: AP6002361 SCTB/IJP(c) JS/WG SOURCE CODE: UR/0207/65/000/006/0084/0086

AUTHOR: Aver'yanova, T. M. (Moscow); Mirkin, L. I. (Moscow); Pilipetskiy, N. P. (Moscow); Rustamov, A. P. (Moscow)

ORG: none

TITLE: The effect of intense light beams on the surface of a metal

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 6, 1963, 84-86

TOPIC TAGS: ruby laser, laser application, laser induced damage, metal damage, microhardness, armco iron, steel, lead, Duralumin, laser machining

ABSTRACT: The effects of high-intensity laser beams on metals (Armco iron, high- and low-carbon steels, lead, Duralumin) were investigated. The emission from the pulsed ruby laser shown in Fig. 1 was focused on the metal surface by means of a lens. The surface of the specimens was bombarded at right angles with 60--80 pulses per discharge, each pulse lasting 2--3 sec and delivering an energy of 1.4--1.6 j. The formation of beam-induced craters, 1.5 mm deep and ~1.5 mm in diameter, was observed. In the steels, three distinct regions around the craters were observed: a poorly-etched region with a fine-specular, martensitic structure directly abutting the crater, an adjacent region containing white, poorly etchable sections consisting of complex-shaped grains, and a third region, the outermost, exhibiting the original metal structure. The increased hardness (by 700 ± 500 kg/mm²) observed in the

Card 1/3

L 11264-66

ACC NR: AP6002361

crater region for low-carbon steels far exceeded that which results from thermal and mechanical methods of metalworking. The intensive hardening in low-carbon steels was associated with extremely short periods of energy liberation, although not all laser-induced effects can be considered as purely deformation effects. Increases in the hardness of the other metals was as follows: Armco iron, 80 kg/mm² (from

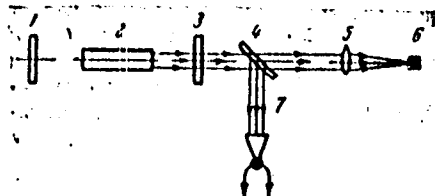


Fig. 1. Schematic of the ruby laser

- 1 -- Mirror (reflection coefficient $R = 99\%$);
- 2 -- ruby crystal; 3 -- mirror (reflection coefficient $R = 30\%$); 4 -- plane-parallel glass plate; 5 -- lens;
- 6 -- irradiated specimen; 7 -- thermocouple calorimeter.

180 to 260 kg/mm²); U-10¹ high-carbon steel (1% C), 600 kg/mm² (from 380 ± 140 to 1000 ± 50 kg/mm²); and high-speed steel, from 430 ± 50 to 650 ± 50 kg/mm². The depth of the crater in lead was considerably greater than in steel, and no changes in the structure and hardness in the crater region were observed. Duralumin showed certain softening in the crater region and was the only material to exhibit cracks in that region. The results confirm an earlier assumption (Mirkin, L. I., Fizika metallov i metallovedeniye, v. 7, no. 4, 1959, 628) that the relative hardening of metals due to thermal or mechanical working is lower the higher the strength of the original material attained by the introduction of doping elements. Orig. art. has: 6 figures. [YK]

Cord 2/3

L 11264-66

ACC NR: AP6002361

SUB CODE: 20 , 13 / SUBM DATE: 31JUL65/ ORIG REF: 002/ OTH REF: 001/

ATD PRESS: 4/76

6C
Card 3/3

L 10887-66 EWT(m)/T/EWP(t)/EWP(b)/EWA(c) TSP(c) JD

ACC NR: AP6001685

SOURCE CODE: UR/0148/65/000/012/0108/0111

AUTHOR: Aver'yanova, T. M.; Gryamov, I. M.
 44.55 44.55

ORG: Scientific-Research Institute of Mechanics, Moscow State University
 (Nauchno-issledovatel'skiy institut mekhaniki Moskovskogo gosudarstvennogo universiteta) 44.55

TITLE: Yield behavior of iron 44.55

SOURCE: IVUZ. Chernaya metallurgiya, no. 12, 1965, 108-111

TOPIC TAGS: mechanical property, tensile test, yield point, yield strength, yield behavior, plastic deformation, iron, Armco iron

ABSTRACT: Microscopic examination of Armco-iron specimens subjected to tensile tests showed that plastic deformation at yield point occurs by slip within grains and is accompanied by the formation of Luder lines. The first slip bands appear and the first Luder lines form at an elongation of 1%. No new slip bands are formed during the whole yield period. Only after the stress begins to increase are new slip bands and Luder lines formed. In some cases, however, numerous Luder lines were formed also during yielding. The grain boundary slip occurs, not as a primary phenomenon, but only as a result of slip within the grains. The experiments confirmed the assumption that deformation at yield point occurs, not by the slip of grain boundaries, but by slip within the grain. Orig. art. has: 4 figures.

Card 1/2

UDC: 539.379.4

[hw]

L 10387-66

ACC NR: AP6001685

SUN CODE: 11/ SUBM DATE: 28Jan55/ ORIG REF: 011/ OTH REF: 001/ ATD PRESS:

4172

HW

Card 2/2

L 22707-66 EMT(n)/EFF(n)-2/T/EWP(t) TJP(c) JD/KH/JG

ACC NR: AN0009051

SOURCE CODE: UR/0207/66/000/001/0079/0082

AUTHOR: Aver'yanova, T. M. (Moscow); Mirkin, L. I. (Moscow); Filipetskiy, N. F.

ORG: none

TITLE: Effect of light beam on the dislocation structure of crystals

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 1, 1966, 79-82

TOPIC TAGS: laser application, thermal optic effect, sodium chloride, crystal surface, surface hardening, crystal dislocation phenomenon

ABSTRACT: This is a sequel to earlier work by the authors (PMTF, 1965, no. 6), where it was shown that a laser beam incident on a metallic surface produces a crater, the hardness around which is several times higher than the hardness that can be obtained in the same material by any of the known mechanical or heat-treatment hardening methods. Since hardness is connected with the dislocation structure, the authors have investigated the changes produced by a laser beam in the dislocation structure of high-purity NaCl, on the surface of which the emergence of the dislocations can be readily displayed. Individual experiments were also carried out on single crystals of refractory tantalum metal. A ruby laser operating in the multiple-spike mode was used, in which stimulated emission was produced by a pump excitation at 3800-6100 Å from a flash lamp operated by

Card 1/2

L 22707-66

ACC NR: AFG009051

2
capacitor discharge. The laser and the apparatus used to measure its beam intensity are described. A microscopic investigation of the surface of the rock-salt crystals has shown that after multiple applications of the laser beam, cracks are produced on the surface, arranged in planes of the (100) type and directed along the [100] axis. Etching disclosed a large number of fresh dislocations of deformation origin. The changes in different regions of the surface are analyzed on the basis of the study of the dislocation structure. The results of the laser damage are compared with the results of other types of damage, such as cleavage, sudden cooling, and high-temperature deformation. It is concluded that the laser effect is similar to that produced by pulsed application of the same amount of heat as is released by the light beam. The authors thank G. I. Barenblat for a discussion of the results and R. V. Khokhlov for making the experiments with the laser possible. Orig. art. has: 8 figures.

[02]

SUB CODE: 20/ SUBM DATE: 10Sep65/ ORIG REF: 005/ AND PRESS: 4729

Card 2/2 BK

SINYAKOV, Aleksandr Borisovich; ANTIPOVA, Anisiya Ivanovna;
KARASEVA, Nina Nikolayevna; AVER'YANOVA, T.N., inzh.,
retsenzent: VIDANOVA, R.I., prepodav., retsenzent;
GUR'YANOVA, N.I., prepodav., retsenzent; DATNER, M.G.,
inzh., retsenzent; KARASEV, V.K., kand. tekhn. nauk,
nauchn. red.; GABOVA, D.M., red.

[Technology of clothing manufacture] Tekhnologiya shve-
nogo proizvodstva. Moskva, Legkaya industriya, 1965. 409 p.
(MIRA 18:7)

L 12073-66 EWT(1)/EWP(e)/EWT(m)/T/EWP(t)/EWP(b)/EWA(h)/EWA(c) IJP(c) JD/WH
ACC NR: AT6001414 SOURCE CODE: UR/3180/64/000/000/0265/0266

AUTHOR: Milovidov, A. A.; Aver'yagina, V. G.

ORG: None

TITLE: Investigation of the ultrasonic treatment of materials

SOURCE: AN SSSR. Komissiya po nauchnoy fotografii i kinematografii. Uspexi nauchnoy fotografii, v. 9, 1964. Vysokoskorostnaya fotografiya i kinematografiya (High-speed photography and cinematography), 265-266 and appropriate inserts following page 264

TOPIC TAGS: high speed photography, abrasive, ultrasonic machining, glass, glass property

ABSTRACT: The nature of the disruption of solid, brittle materials by ultrasound has been studied by high-speed photography (9,000 frames/sec). The investigation of glass materials covered 1) the mechanism of energy transfer from the vibrator to the abrasive; 2) the overall pattern of behavior of abrasive particles within the ultrasonic field; and 3) the disruption process of the model. The results are illustrated. The penetration of the abrasive particles into the instrument and its destruction, the disruption of glass in the zone of contact between the instrument and the model, and the treatment of glass by cylindrical instruments under various conditions are shown. A brief discussion of the results is also given. Orig. art. has 5 figures.

SUB CODE: 11, 14, 20 / SUBM DATE: none

Card 1/1

USSR/Acoustics - Ultrasonics, J-4

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35563

Author: Aver'yanova, V. G., Makarov, V. I., Rzhavkin, S. N.

Institution: Moscow State University, USSR

Title: Visualization of Shear Ultrasonic Waves in Transparent Solid Bodies

Original
Periodical: Akust. zh., 1956, 2, No 2, 224-225

Abstract: Using a sensitive Tepler installation in (flint) glass blocks in nonpolarized light, the standing shear waves, excited by a Y-section quartz plate, was observed. At 805.6 kc the speed of the shear wave was 2,481 m/sec. The running shear waves were observed upon reflection of the longitudinal wave at the boundary between the glass and the air in the form of a light beam against the background of the interference of the reflected longitudinal and shear waves. Mueller (Mueller, H., Physics, 1935, 6, 179-184) has shown theoretically that the elastic stresses produce an

Card 1/2

USSR/Acoustics - Ultrasonics, J4

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35563

Abstract: anisotropy of the molecular refraction, changing as a result the coefficient of refraction. This leads to the possibility of the diffraction of light by shear waves, although indeed a weaker possibility than in the case of longitudinal waves. The possibility of visualizing shear waves without polarization optics is attributed to the greater sensitivity of the installation.

Card 2/2

PHASE 1 BOOK EXPLOITATION NOV/3528

Moscow. Dom nauchno-tekhnicheskoy propagandy

Primeneniye ul'trazvuka v promyshlennosti; sbornik statey (Industrial Use of Ultrasound; Collection of Articles) Moscow, Mashiz, 1959. 301 p. 8,000 copies printed.

Sponsoring Agency: Otschestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy KPSR.

Ed. (title page): V.P. Korday, Doctor of Physical and Mathematical Sciences, Professor, Ed. (title page): G.P. Kuchera, Engineer, Techn. Ed.: V.B. Kikind; Managing Ed.: for literature on Machinery and Instrument Manufacturing (Mashiz): M.V. Pokrovskiy, Engineer.

PURPOSE: This book is intended for engineers and technicians engaged in the application of ultrasonics in machinery manufacture and in other branches of industry.

COVERAGE: This is a collection of papers read at the first all-Union conference on the use of ultrasonics in industry. Attention is focused mainly on the description of ultrasonic equipment and on the use of ultrasound for the machining of hard materials and for flaw detection. The effect of ultrasonic metal-cryogenic processes is also discussed. The responsibilities mentioned. References accompany many of the papers.

Kraygorodskiy, Ya.L., Engineer; and M.G. Kozlov, Candidate of Technical Sciences. Ultrasonic Equipment for Industrial Application

Moscow, A.I., Candidate of Technical Sciences, Dozent. Design for Transformation of Vibrations from Mechanical

Bulycheva, I.M., Candidate of Technical Sciences; Ye.I. Gurichen, Candidate of Technical Sciences; and Ya.P. Selitskiy, Candidate of Technical Sciences. Magnetic Alloys for Ultrasonic Applications

Moscow, I.O., Engineer. Methods of Making Design Calculations for Bar-Type Exponential Ultrasonic Concentrators

Golyamina, I.P. Use of Ferrites as Ultrasonic-Wave Radiators

Semenov, Yu.B., Engineer. Method of Transforming Input Resonance of a 2-Bar Radiator

Sirotyuk, M.O., Engineer. Matching a Generator of Electric Oscillations With a Quartz Radiator Directly Connected With the Generator Circuit

Moscow, B.M., Engineer. Characteristics of the Ultrasonic Machine of Metals

Moscow, M.M., Candidate of Technical Sciences; and A.A. Zolotarev, Experience Gained at the Leningradskiy Metallicheskiy Zavod (Leningrad Metal-Products Plant) in the Ultrasonic Drilling of Holes in Quartz Plates

D'yachenko, P.Ye., Doctor of Technical Sciences, Professor; K.A. Mironov, Engineer; and I.A. Kuznetsov, Some Problems in the Ultrasonic Machining of Metals

Teplin, I.I., Candidate of Physics and Mathematical Sciences. Effect of Elastic Vibrations on the Crystallization and Processing Properties of Alloys

Radiashov, Kh.B., Candidate of Chemical Sciences. Effect of Ultrasonic Vibrations on the Process of Crystallization

Shaybet, D.S., Candidate of Techn. Sciences, Ultrasonic Flaw Detection

Yemel'yan, I.M., Engineer. Ultrasonic Instruments Developed by Tsel'nyash for the Measurement of Thickness and Product Control

Gubanova, M.R., Candidate of Technical Sciences. Ultrasonic Detection of Flaws in Massive Welds

Voznukh, M.M., Ultrasonic Inspection of Case Depth in Electrically Hardened Steel Products

Moscow, M.V., Engineer. Design of Piezoelectric Transducers for Ultrasonic Flaw Detectors

AVER'YANOVA, V.G. (Mskva); DIMENTBERG, F.M. (Mskva)

Determining the displacement screw by the initial and final position
of the solid. Mashinovedenie no.2:13-17 '65.

(MIRA 18:8)

D'YACHENKO, P.Ye.; AVER'YANOVA, V.G.

Investigating the dispersing of solids under the action of
ultrasonic waves. Tren.i izn.mash. no.15:85-96 '62. (MIRA 15:4)
(Dispersion) (Ultrasonic waves)

AYER'YANOVA, V.G. (Moskva); DIMENTBERG, P.M. (Moskva)

Geometrical interpretation of the vibration of an elastically
suspended solid. Izv. AN SSSR Mekh. i mashinostr. no.6:10-19
N-D '64. (MIRA 18:2)

AVERYANOVA, V. M.

USSR/ Chemistry

Card : 1/1 Pub. 151 - 24/33

Authors : Glikman, S. A., Efremova, C. G., and Averyanova, V. M.

Title : Effect of metal ions on the properties of ethyl-cellulose. Part 3.-
Dependence of the elastic-plastic properties of ethyl-cellulose upon
its sodium-ion content

Periodical : Zhur. ob. khim. 24/8, 1427 - 1432, August 1954

Abstract : The effect of Na^+ ions on the viscosity and other properties of ethyl-cellulose, was investigated. It was established that all elastic-plastic characteristics (elastic limit, modulus of elasticity and viscosity) of ethyl-cellulose increase during the introduction of Na^+ . The effect of Ca^{++} ions on the properties of ethyl-cellulose was found to be greater than that of Na^+ . Six references: 5 USSR and 1 USA (1938 - 1952). Tables; graphs.

Institution : State University, Saratov

Submitted : July 13, 1954

OLIKMAN, S.A., AVER'YANOVA, V.M., KHMUTOVA, L.I.

Mechanical properties and structure of acetyl cellulose spinning solutions

Report presented at the 13th Conference on high molecular compounds
Moscow, 8-11 Oct 62